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SHORT COMMUNICATION

Precipitating Factors of Hepatic Encephalopathy in Patients with Chronic Liver Disease at Civil Hospital Karachi

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Patients with chronic liver disease (CLD) constitute a significant burden on the economy of the country. Approximately 3% of global population is estimated to be chronically infected with hepatitis C virus with an annual incidence of 3 to 4 million new cases globally.[1] Patients with CLD frequently experience episodes of exacerbations including hepatic encephalopathy precipitated by variety of established precipitants.[2] Hepatic encephalopathy is defined as a spectrum of neuropsychiatric abnormalities in patients with liver dysfunction, after exclusion of other known brain disease.[2] It is characterized by personality changes, intellectual impairment, and a depressed level of consciousness. Identification of the precipitants and their prevention and/or immediate seeking of tertiary care facility may have significant impact on morbidity and mortality of patients presenting with hepatic encephalopathy. The objective of this study was to determine the frequency of factors likely to precipitate the hepatic encephalopathy in patients with CLD presenting to the Medical Wards of Civil Hospital, Karachi.

Patients admitted to Medical Wards at Civil Hospital, Karachi, from August 1, 2006 to December 31, 2006 were selected. Inclusion criteria included those patients who already had the established diagnosis of CLD on the basis of history, physical examination, laboratory, and radiological tests. The diagnosis of the hepatic encephalopathy and the likely precipitating factor was made by the Incharge of the ward. Once, the patients became stabilized, they were also interviewed in order to know more about the precipitating factor.

Two hundred fifty-six patients with CLD were recruited in this study to determine the most likely precipitating factor of hepatic encephalopathy. The results are summarized in Table I. Infections including spontaneous bacterial peritonitis were noted to be the major inciting stimuli for precipitating hepatic encephalopathy. Among the drug-precipitated hepatic encephalopathy patients, frusemide and propranolol were identified as the likely culprits.

Table I: Most likely participating factor for hepatic encephalopathy.

Most likely precipitating factor	Frequency	%
Gastrointestinal bleeding	39	15.2
Constipation	31	12.1
Spontaneous Bacterial Peritonitis (SBP)	28	10.9
Infections other than SBP	23	9.0
Drugs	4	1.6
Other	1	0.4
Not known	130	50.8
Total	256	100.0

Hepatic encephalopathy is a complicated disorder, the pathophysiology of which remains to be fully understood. Current common theories explaining hepatic encephalopathy include the potential involvement of ammonia, gamma-aminobutyric acid/ benzodiazipines and false neurotransmitters.[3] On most occasions, hepatic encephalopathy appears due to a superimposed precipitating factor (gastrointestinal bleeding, infections, renal and electrolyte disturbances, etc.).[4] In addition to other things, elimination or treatment of the precipitating factors remains an important therapeutic goal. Earliest possible diagnosis and timely intervention is at the core of management and prevention of progression of CLD. Awareness about the nature and frequency of precipitating factors to not only health care professionals but also to patient population with their subsequent avoidance can contribute significantly in preventing the disease progression and episodes of exacerbation. Since specific precipitating factors have specific treatment, prompt identification of particular precipitating factor is a must to prolong the life expectancy and to improve the quality of life of patients with hepatic encephalopathy.[5] This may provide some mortality benefit and may also improve the quality of lives of patients suffering from CLD.

This study, is the first of its kind in Pakistan to show the frequency of the precipitating factors of hepatic encephalopathy in patients with CLD. This may help physician in setting their priorities while managing patients with hepatic encephalopathy.

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